ACCESSION NR: AP5007385 S/0286/65/000/004/0040/0040

AUTHOR: Model', A. M.

TITLE: Polarization selector. Class 21, No. 168348

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 40

TOPIC TAGS: selector, polarization selector, T junction selector

ABSTRACT: The proposed polarization selector is designed in the form of a T-junction which contains wire grids and is made of square-cross-section waveguides. To improve the matching of all the selector arms over a wide frequency range, a transverse wire grid is placed in the vertical arm at a distance of one-half wavelength from the junction point, and two metal base pins mounted on a foam plastic plate are placed in the horizontal arm. Orig. art. has: 1 figure. [DW]

ASSOCIATION: none

SUBMITTED: 29Jan64 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3221

Card 1/1

MODEL', A. M.

USSR/Electronics - Antennas

Card 1/1

Author : Model', A. M.

Title : Analysis of "wave channel" type antennas

Periodical : Radiotekhnika 9, 55-62, Jan-Feb 1954

Abstract : Directional and traveling wave antennas are analyzed by substituting approximate expressions for the exact dependence of the reciprocal radiation resistance of two vibrators upon the distance between them. By this method antenna analysis can be reduced to merely solving difference equations of the second order. Formulas are given for calculating current distribution along the antenna and for computing directional diagrams, amplification factor, input resistance, and efficiency. Two references: 1 USSR

Submitted : June 19, 1953

Translation ATIC [illegible]

FD-2498

MODEL', A. M.
USSR/Electronics - Antennas

Card 1/1 Pub. 90-6/9

Author : Model', A. M.

Title : Propagation of plane electromagnetic wave in a space filled with plane parallel gratings

Periodical : Radiotekhnika, 10, 52-57, Jun 55

Abstract : Present work is devoted to investigation of propagation of a plane electromagnetic waves through series of parallel gratings made of synthetic dielectric material. The method of analysis is independent of the geometric shape of the elements of the grating. Utilizing the method of Hertz [illegible] formulas are derived which define the basic parameters for synthetic dielectrics, such as phase velocity, refractive index, reflection coefficient and the transit coefficient, which characterize the penetratibility of a plane electromagnetic wave through a finite number of plane gratings made of a synthetic dielectric material. Graphs. Two references: 1 USSR.

Institution:

Submitted : December 25, 1954

AUTHOR : Model', A.A.

"Elements of An Antenna-Wave Gudie Channel for Multichannel Radio Relay Lines,"
A-U Sci Conf dedicated to "Radio Day," Moscow, 20-25 May 1957.

PERIODICAL: Radiotekhnika i Elektronika, Vol 2, No. 9, pp. 1221-1224, 1957, (USSR)

6(4) PHASE I BOOK EXPLOITATION SOV/2322

Borodich, S.V., N.I. Kalashnikov, A.M. Model', S.D. Manayenkov, and V.V. Petrov

Radioreleynyye linii svyazi (Radio Relay Networks) Moscow, 1957. 36 p. (Series: Obzory po novoy tekhnike. Energetika) Errata slip inserted. 3,000 copies printed.

Sponsoring Agencies: USSR. Gosudarstvennyy komitet po novoy tekhnike, and Akademiya nauk SSSR. Vsesoyuznyy institut nauchnoy i tekhnicheskoy informatsii.

Ed.: V.I. Siforov, Corresponding Member, USSR Academy of Sciences.

PURPOSE: This booklet may be useful to engineering personnel working with radio relay systems.

COVERAGE: The authors discuss radio relay lines existing in the USSR and abroad. They also describe the utilization of tropospheric scattering of radio waves in radio and television broadcasting. There are 10 references: 2 Soviet (both trans-

Card 1/3

lations) and 8 English.

TABLE OF CONTENTS:

SOV/2322

Radio Relay Networks

AVAILABLE: Library of Congress (TK 6553 .B59)

JP/ec
10-7-59

Card 3/3

MODEL', A.M.

AYZENBERG, Grigoriy Zakharovich; MODEL', A.M., otvetstvennyy red.; VORONOVA, A.I., red.; VEYNTRAUB, A.B., tekhn.red.

[Ultrashort wave antennas] Antenny ul'trakorotkikh voln. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1957. 698 p. (MIRA 10:12)

(Radio, Shortwave--Antennas)

Model', A.M.

106-10-[illegible], 11

AUTHORS: Ayzenberg, G.Z., Model', A.M., Pozdnyakov, L.P., [illegible]inary [illegible]bers of the Society

TITLE: Cylindrical Long- and Short-Wave Slot Antennae (Tsilindricheskiye shchelevyye dlinnovolnovyye i srednevolnovyye [illegible]tenny)

PERIODICAL: Radiotekhnika, 1957, Vol. 12, Nr 10, pp. 5 -16 (USSR)

ABSTRACT: Antennae on low supports for wireless are described. The authors show that by means of the utilization of cylindrical slot vibrators, which are known within the range of centimeter- and decimeterwaves, as medium-wave antennae, the height of the antenna can be reduced to 0,3 maintaining a high degree of efficiency as well as the range of free transmission demaned. These slot vibrators must be modified according to the medium-wave range. The results of theoretical and experimental investigations are given here. The reasons for the utilization of high antennae are investigated and the ways for the solution of problems developing when changing over to low supports are shown. The authors show that such antenna must be looked for in which the currents to the earth do not flow to one single point but are deconcentrated over the whole circumference. The current structure as well as the earth losses in the near of a cylindrical slot antenna are in-

Card 1/2

Cylindrical Long- and Short-Wave Slot Antennae

vestigated. Formulae are deduced for the calculation of the current intensities in earth for vibrations with the height- and diameter-conditions used most in practice. By means of the data obtained the earth system can be calculated. The directivity diagram in a vertical plane as well as the radiation resistance of a cylindrical slot antenna are investigated. The results of the experimental investigation are given: - 1.) The distribution of current over the circumference of the antenna was almost regular within the long-wave. 2.) The degree of efficiency was 0,9 with two waves of 430 and 530 m. 3.) The range of free transmission was 18,4 kcycles with the 600 m wave and 34 k cycles with the 530 m wave. There are 11 figures and 2 Slavic references.

SUBMITTED: July 2, 1957

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova

AVAILABLE: Library of Congress

Card 2/2

MODEL, A. M.

B. Z. Kinber, A. M. MODEL: "Cross-polarization characteristic of mirror antennas." Scientific Session Devoted to "Radio Day", May 1958, Tsvetnoservizdat, Moscow, 9 Sep. 58

Emission created by linearly polarized source located at a mirror focus does not retain its polarization plane. The polarization of emission for an arbitrary axisymmetric mirror antenna excited by a source whose dipole moment is perpendicular to the mirror axis is analyzed. The cross-polarization pattern for sharply focussed antennas is one-half the difference of the pattern over the principal polarization component in the E and H planes. The relative portion of the energy incident is cross-polarization emission is calculated.

L 29922-65 EEC-4/EMT(1) Peb

ACCESSION NR: AP5003854 S/0106/65/000/001/0056/0060

AUTHOR: Model', A. M.

TITLE: Amplitude-frequency characteristic of the waveguide bandpass filter far from the resonance

SOURCE: Elektrosvyaz', no. 1, 1965, 56-60

TOPIC TAGS: waveguide filter, bandpass filter

ABSTRACT: As the conventional concentrated-capacitance-inductance equivalent circuit of a waveguide-resonator-type filter is valid only within 2—3% of the resonance point, a general formula for the transfer constant of a two-iris waveguide resonator (filter section) is developed. The square modulus of the transfer constant is given by:

$$|T|^2 \approx \frac{1}{1+Q^2\Delta^2}, \qquad (10)$$

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L 29922-65

ACCESSION NR: AP5003854

where

$$Q=\frac{\sqrt{1+U^2}}{U^2}\pi K\left(\frac{\lambda_{gp}}{\lambda_0}\right)^3, \qquad (1)$$

$$\Delta=\left[1-\frac{\pi^2K^2}{6}\left(\frac{\lambda_{gp}}{\lambda_0}\right)^4\left(\frac{\Delta f}{f_0}\right)^2\right]\left[1-\left(\frac{\lambda_{gp}}{\lambda_0}\right)^2\frac{\Delta f}{f_0}\right]^2\frac{2\Delta f}{f_0}. \qquad (2)$$

It is shown that Δ is a generalized relative "detuning" and corresponds to the value $\frac{2\Delta f}{f_0}$ in the near-resonance range. The difference between the two is independent of the filter Q-factor and is entirely dependent on the number of resonators and the ratio of the waveguide size to the wavelength. Orig. art. has: 4 figures and 14 formulas.

ASSOCIATION: none

SUBMITTED: 24Jun64 ENCL: 00 SUB CODE: EC

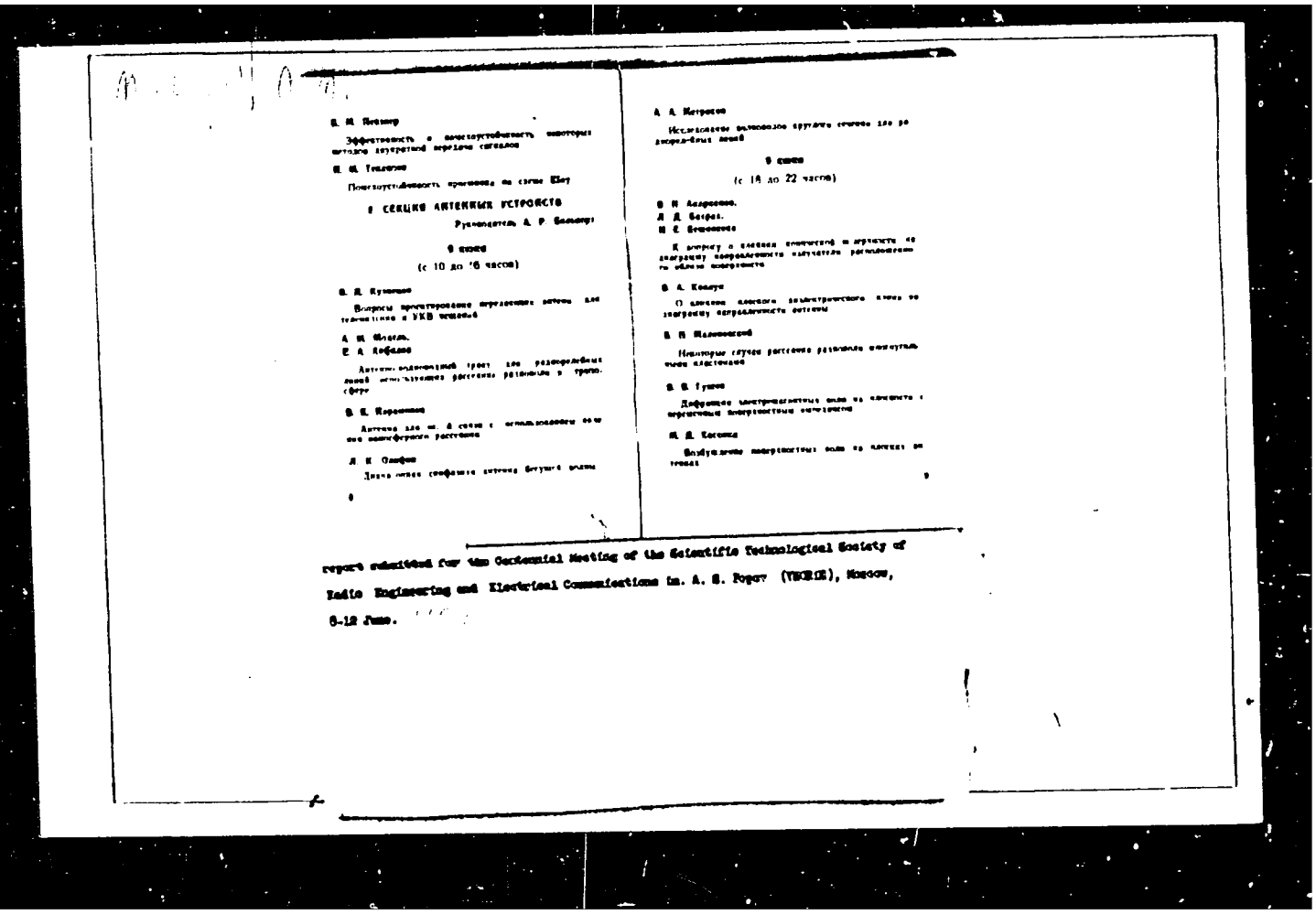
NO REF SOV: 003 OTHER: 000

Card 2/2

KOSIKOV, K.M.; MITTELLO, B.F.; KODEL', A.M.; SAVITSKIY, G.A.; FEDOROVICH, Ye.G.
SHCHETININ, A.P., FEDUNIN, G.A., otv.red.; GALOYAN, M.A., red.
SHEFER, G.I.,tekhn.red.

[Handbook for electric communications]. Inzhenerno-tekhnicheskii spravochnik po elektrosviazi. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio. Vol.8, [Radio], Radiosviaz', 1958. 500 p. (MIRA 11:3)

1. Russia (1923- U.S.S.R) Ministerstvo svyazi.
(Radio)



reports submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (TRERiE), Moscow, 8-12 June.

MODEL', A. (Leningrad); ZAKREVSKIY, V. (Leningrad)

Device with a measuring bridge. Radio no.3:37-39 Mr '61.
(MIRA 14:8)

(Transistors--Testing)

GRADOV, G.A.; KALININA, G.F.; MODEL', A.M.; NEVRAYEV, G.A.; SAMOYLOV, A.V.[deceased]; SVIRSKIY, V.A.; KOSITSKIY, Ya.V., kand. srkhit., nauchnyy red.; MANIKOV, M.Ye., kand. med. nauk, nauchnyy red.; MOROZOVA, G.V., red.; BRUSINA, L.N., tekhn. red.

[Sanatoriums and rest homes; manual on designing] Sanatorii i doma otdykha; posobie po proektirovaniiu. Moskva, Gosstroiizdat, 1962. 223 p. (MIRA 15:7)
1. Akademiya stroitel'stva i arkhitektury SSSR. Institut obshchestvennykh zdanii i sooruzhenii.
(Sanatoriums) (Labor rest homes)

S/108/62/017/004/004/010
D288/D301

9, 1912

AUTHOR: Model', A.M., and Talyzin, N.V.

TITLE: Oblique incidence of a plane wave on a selective reflecting surface

PERIODICAL: Radiotekhnika, v. 17, no. 4, 1962, 23 - 33

TEXT: The reflecting surface is formed by a parallel array of dipoles of 2l length, their centers separated by 2a and the parallel spacing being d. Two general cases are considered: First, case "E" where electric field vector E is parallel to the dipoles, and magnetic vector H forms an angle φ with the array plane, and the second case "H", where H is parallel to the dipoles, and E forms θ with the plane. Analysis of the plane diffraction follows Talyzin (Ref. 1: Elektrosvyaz', 3, 1961), by analogy with phenomena in a continuous reflecting surface; the reflection coefficient p = $= E_{1(\text{selective})}/E_{2(\text{cont.})}$. Case "E" is considered first for a continuous reflecting plane, and formulas are given for the current density and the vector of reflected E. To obtain corresponding va-

Card 1/2

Oblique incidence of a plane wave ... S/108/62/017/004/004/010
D288/D301

lues for the dipole array, current distribution along the individual dipole has to be calculated. Expressions for I, Z_{input} and p are given in terms of I_o (current node), 2l, λ and incidence angle. For certain levels of l/λ simplified formulas apply. To obtain the radiation impedance $Z_1(E)$ of a single symmetrical dipole in the field of neighboring dipoles, Fourier analysis yields complex expressions containing Bessel, Neumann and Macdonald functions. In the case "H" the mathematical treatment has to be simplified by assuming linear phase characteristics of dipole currents. Again expressions are written for E_1, E_2, I_o and p, leading to calculation of Z_1 (H) which is then split into real and reactive components. As an example of the practicability and accuracy of the method, 4 curves for each case are reproduced, plotting p vs. λ for φ, resp. $\theta_1 = 0^o$, 22.5^o, 45^o and 67^o. They show good agreement with measurements. There are 10 figures.

SUBMITTED: May 24, 1961

Card 2/2

Model' A.M.

AID Nr. 979-6 29 May

MODE H_{10} DIFFRACTION ON A LATTICE DIAPHRAGM CONSISTING OF N EQUIDISTANT RODS (USSR)

Model', A. M. Radiotekhnika, v. 18, no. 4, Apr 1963, 12-21.
S/108/63/018/004/003/008

The method of averaged boundary conditions is used to derive formulas for the coefficients of reflection from diaphragms consisting of n rods equidistant from each other and from the waveguide walls. The Q-factors of waveguide cavities constituted by two such diaphragms are calculated with an accuracy of 3-5%. A comparison of the theoretical results with the experimental shows that at low rod-diameter-to-waveguide-width ratios ($d/a \leq 0.01$), averaging of boundary conditions on the basis of 2 and 3 points yields an agreement of theoretical and experimental data. Moreover, at $d/a \geq 0.01$, averaging based on 4 points greatly increases the accuracy of the calculation, and averaging

Card 1/2

AID Nr. 979-6 29 May

MODE H_{10} DIFFRACTION [Cont'd]

S/108/63/018/004/003/008

based on 8 points insures the virtual coincidence of theoretical and experimental data. The expressions derived make it possible to determine energy losses in the cavities formed by the diaphragms. The method of averaged boundary conditions can be applied to solving other problems, i.e., for analyzing plane wave diffraction on various lattices in order to determine the effect of transverse lattice wire dimensions on reflection and transmission coefficients. [DW]

Card 2/2

L 19780-65 EWT(d)/FSS-2/EWT(c)/EEC-4/EEC(b)-2/FCS(k) Pn-4/Pp-4/Pi-4/
Pj-4/Pt-4/Pac-4/Pae-2 ASD(a)-5/RAEM(c) WR
ACCESSION NR: AP4047808 S/0108/64/019/010/0015/0021

AUTHOR: Model', A. M. (Active member)

TITLE: Analysis of a directional coupler with discrete coupling

SOURCE: Radiotekhnika, v. 19, no. 10, 15-21 - 1964

TOPIC TAGS: directional coupler, SHF communication

ABSTRACT: A general theoretical analysis of a directional coupler consisting of two arbitrary lines coupled by means of discrete elements is presented. The coupler is represented by a chain of series-connected branches; each branch is regarded as an eight-pole network symmetrical with respect to the vertical axis. Difference equations are set up which determine the distribution of amplitudes and phases of the field strength along the both lines constituting the directional coupler. As a result of solving the difference equations simultaneously with the terminal conditions of the directional coupler, formulas are evolved for

Card 1/2

L 19780-65
ACCESSION NR: AP4047808

propagation constants, incident and reflected wave amplitudes, directivity, transfer constant, and other parameters of the coupler. The application of the formulas is illustrated by an example of a directional coupler consisting of two coupled lines having the same phase velocity but different characteristic impedances. Orig. art. has: 4 figures and 60 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 04Dec63 ENCL: 00

SUB CODE: EC NO REF SOV: 003 OTHER: 001

Card 2/2

L 2187-66 EWT(1)/EWA(h)

ACCESSION NR: AP5020761 UR/0109/65/020/008/0023/0030
621.372

AUTHOR: Model', A. M. (Active member)

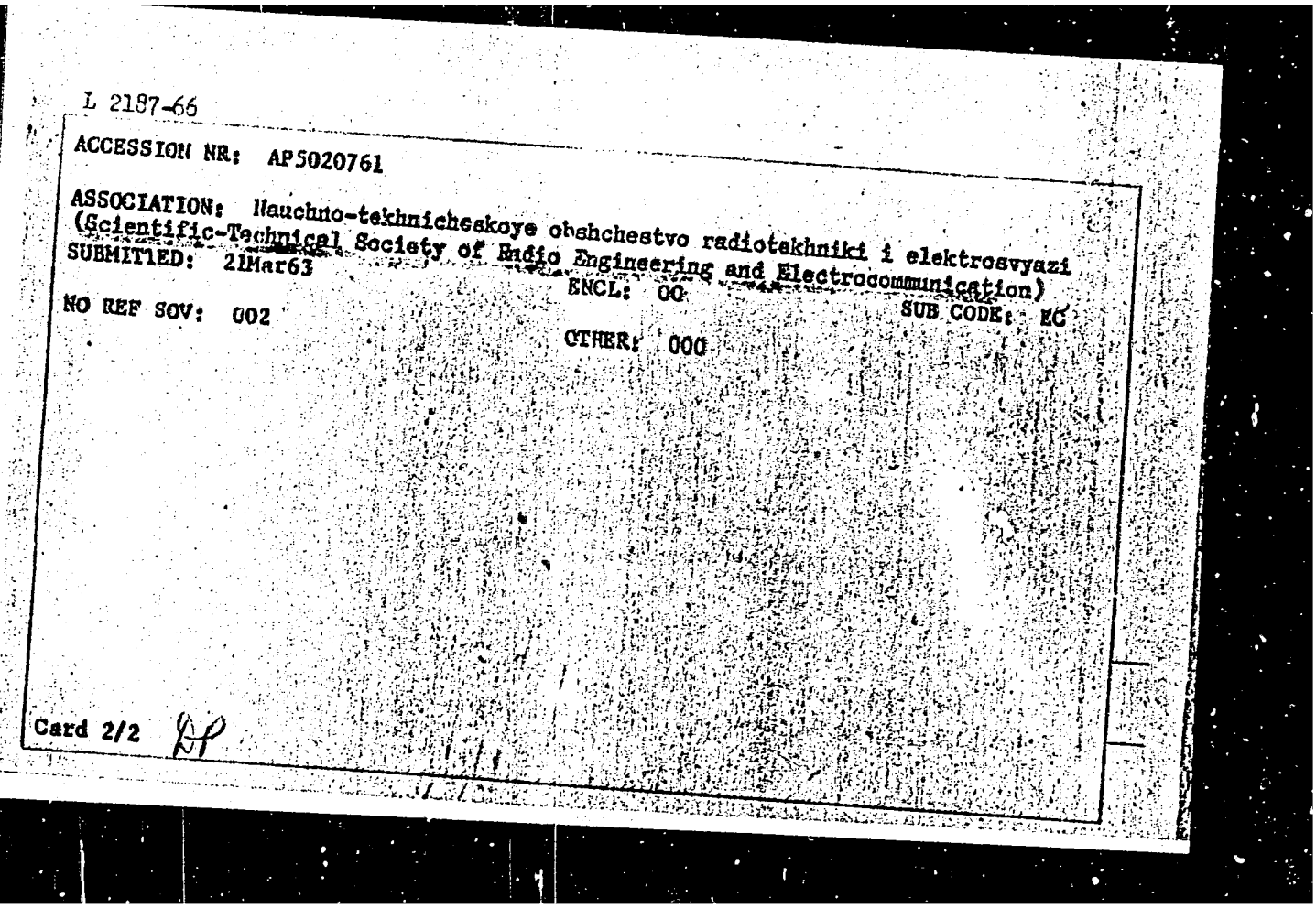
TITLE: Series circuits for waveguides

SOURCE: Radiotekhnika, v. 20, no. 8, 1965, 23-30

TOPIC TAGS: waveguide filter, resonator, resonator Q factor, waveguide

ABSTRACT: Rejector filters, the major component of which consists of a series circuit connected in parallel with the main line are often needed in waveguides. Such series segments can be in the form of a volume resonator connected with the waveguide through slits in the wide or narrow waveguide walls. The present author carries out an analysis of waveguide resonators equivalent to series circuits and derives expressions for the determination of the Q-factor under load, the amplitude-frequency and phase-frequency characteristics, and the magnitude of the loss. The maximum field intensities within resonators and the reflection coefficient (from the resonator) for large detuning are also given. Orig. art. has: 37 formulas and 7 figures.

Card 1/2



L 2187-66

ACCESSION NR: AP5020761

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific-Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 21Mar63 ENCL: 00 SUB CODE: EC

NO REF SOV: 002 OTHER: 000

Card 2/2

L 2330-66 EWT(d)/EWI(1)/EEC(k)-2 GL/WS-2
ACC NR: AP6021015 SOURCE CODE: UR/0108/66/021/003/0031/0037

AUTHOR: Model', A. M.(Active member)

ORG: (Scientific and Technical Society of Radio Engineering and Telecommunications im. A. S. Popov (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Electromagnetic-wave propagation in two bounded waveguides of different cross sections

SOURCE: Radiotekhnika, v. 21, no. 3, 1966, 31-37

TOPIC TAGS: electromagnetic wave, wave propagation, wave equation, waveguide

ABSTRACT: An approximate analysis of electromagnetic-wave propagation in two bounded waveguides of different cross sections has been expounded. The waveguides are bounded by a long continuous opening. As a result of analysis, equations and diagrams have been obtained for determining the constant propagation of three type-1 waves along the longitudinal axis of the system. Equations have been obtained

Card 1/2

L 44380-66
ACC NR: AP6021915

for an approximate determination of the field structure in bounded waveguides. Orig. art. has: 6 figures and 30 formulas. [Based on author's abstract] [NT]

SUB CODE: ~~17~~ 09 / SUBM DATE: none/ ORIG REF: 001/

hs

Card 2/2

L 00683-67 EWT(1)/T WR

ACC NR: AP6005308 SOURCE CODE: UR/0413/66/000/001/0043/0043

AUTHOR: Model', A. M.

39

ORG: none

B

TITLE: A device for connecting two radio relay systems to a common antenna-waveguide channel. Class 21, No. 177487

25B

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 43

TOPIC TAGS: waveguide, waveguide coupler, waveguide antenna, waveguide element, radio relay

25

ABSTRACT: This Author Certificate presents a device for connecting two radio relay systems (which operate in different frequency ranges) to a common antenna-waveguide channel. The device consists of a central waveguide of square or circular cross section and of two lateral waveguides connected with the central waveguide through a series of coupling waveguides (see Fig. 1). The design provides high matching. The lateral waveguides are shifted one in respect to the other along the axes of the central waveguide by one quarter of a wavelength. The lateral waveguides are interconnected by a waveguide bridge. A ballast load is connected to the fourth arm of this bridge.

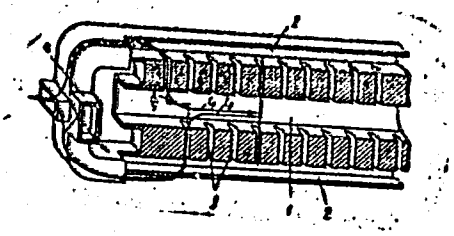
Card 1/2

UDC: 621.372.833

L 00683-67

ACC NR: AP6005308

Fig. 1. 1 - central waveguide of square or circular cross section; 2 - lateral waveguides; 3 - coupling waveguides; 4 - waveguide bridge



Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 12Feb64

Card 2/2 fv

ACC NR: AP7005610 SOURCE CODE: UR/0413/67/000/002/0049/0049

INVENTOR: Ayzenberg, G. Z.; Model', A. M.

ORG: None

TITLE: A passive radiator for a radio relay line. Class 21, No. 190435

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 49

TOPIC TAGS: radio relay, signal transmission, passive signal processing, antenna

ABSTRACT: This Author's Certificate introduces: 1. A passive radiator for a radio relay line. The unit is designed for installation between active relay stations. The distance between active stations is increased by making the device in the form of a solid or grid-type flat or curved metallic surface perpendicular to the line joining the transmission and reception points. 2. A modification of this radiator made from a material which is permeable for electromagnetic waves, but with a phase velocity differing from the speed of light. The thickness of the radiator is such that the phase of the field intensity on the back side is rotated through 180° with respect to the primary field on this same surface.

SUB CODE: 09/ SUBM DATE: 19Feb54

Card 1/1

UDC: 621.396.677.83

MODEL', A.Ya.

CHEKMAREV, Yakov Fedorovich, sostavitel'; BOGDANOV, I.M., uchitel' matematiki; MODEL', A.Ya., uchitel'; GNUSOV, N.V., uchitel'; PAVUK, T.I., uchitel'-nitsa; ZDRAVOMYSLOVA, N.K., uchitel'nitsa matematiki; BORISOV, S.A, uchitel' matematiki; KITAYGORODSKIY, P.I., uchitel' matematiki.

[Teaching mathematics in the schools for young workers] Iz opyta prepodavaniia matematiki v shkolakh rabochei molodezhi; sbornik statei. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1952. 128 p. (MLRA 6:5)

1. Akademiya pedagogicheskikh nauk RSFSR, Institut metodov obucheniya. 2. Shkola rabochey molodyezhi No 52, Moskva (for Bogdanov). 3. Shkola rabochey molodyezhi No 31, Leningrad (for Model'). 4. Shkola rabochey molodyezhi No 4, Moskva (for Gnusov). 5. Shkola rabochey molodyezhi No 65, Moskva (for Pavuk). 6. Shkola rabochey molodyezhi No 71, Leningrad (for Zdravamyslova). 7. Shkola rabochey molodyezhi No 32, Moskva (for Borisov). 8. Shkola rabochey molodyezhi No 45, Moskva (for Kitaygorodskiy).
(Mathematics--Study and teaching)

L 11612-66 EWT(1)/EWA(h)

ACC NR: AP5028791 SOURCE CODE: UR/0108/65/020/009/0046/0057

AUTHOR: Model', A. Z. (Active member); Shishkov, G. N. (Active member) 41 B

ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Positive-feedback sawtooth-voltage transistorized oscillators analyzed 25

SOURCE: Radiotekhnika, v. 20, no. 9, 1965, 46-57

TOPIC TAGS: transistorized oscillator, electronic oscillator, sawtooth oscillator, electronic feedback, electronic circuit, transistor

ABSTRACT: Transistorized positive-feedback ("bootstrap") sawtooth oscillators have not come into wide usage because of their too long flyback and insufficient sawtooth-voltage linearity. A new method of correcting the nonlinearity is suggested and mathematically substantiated; the method is based on controlling the gain of the oscillator amplifier. Fundamental relations are developed for two circuits: with a feedback battery and with a feedback (large) capacitor. For eliminating the sawtooth-voltage nonlinearity, introduction of a two-stage transistorized amplifier with a variable in-excess-of-1 gain is recommended; the 2-stage amplifier replaces the

Card 1/2

UDC: 621.396

L 11612-66

ACC NR: AP5028791

emitter follower in well-known sawtooth oscillator circuits. An experimental verification with P101 and P105 transistors exhibited a practically linear transfer characteristic and a gain stable within 1.5% at temperatures within 20 ± 30C. Also, the use of a voltage-regulating (Zener) diode in lieu of the large capacitor (feedback-voltage source) is indicated. Orig. art. has: 9 figures and 57 formulas.

SUB CODE: 09 / SUBM DATE: 22Nov63 / ORIG REF: 003 / OTH REF: 001

Card 2/2

ARTYM, Anatoliy Dmitriyevich; MODEL', A.Z., red.; SOBOLEVA, Ye.M., tekhn. red.

[Theory and methods of frequency modulation] Teoriia i metody chastotnoi moduliatsii. Moskva, Gos. energ. izd-vo, 1961. 242 p. (MIRA 14:9)

(Radio frequency modulation)

MODEL', A.Z.; DRANGINIS, V.V.

Highly stable terminal stages of low-frequency transistor sweep generators. Radiotekhnika 16 no.7:52-59 Jl '61. (MIRA 14:7)
(Oscillators, Electric) (Television)

MODEL', D.

Prefabricated grain gallery on the top of an elevator. Muk.-elev. prom. 22 no.12:5-7 D '56. (MLRA 10:2)

1. Glavnyy mekhanik tresta TSentrokhlebostroy.
(Grain elevators)

MODEL', D.M.

High-speed grinding of optical parts. Mash.prom. 12 no.11:47-52 N'58 (MIRA 11:12)

1. Leningradskiy optiko-mekhanicheskiy zavod.
(GRINDING AND POLISHING)

MODEL', D.M.

Intensification of the process of polishing optical glass. Med.prom. 13 no.9:49-51 S '59. (MIRA 13:1)

1. Leningradskiy optiko-mekhanicheskiy zavod.
(GLASS, OPTICAL)

MIRONOV, Ye.F.; MODEL', D.M.

Intensification of the production of eyeglass lenses. Med.prom. 13 no.10:44-46 O '59. (MIRA 13:2)

1. Leningradskiy optiko-mekhanicheskiy zavod.
(GLASS, OPTICAL)

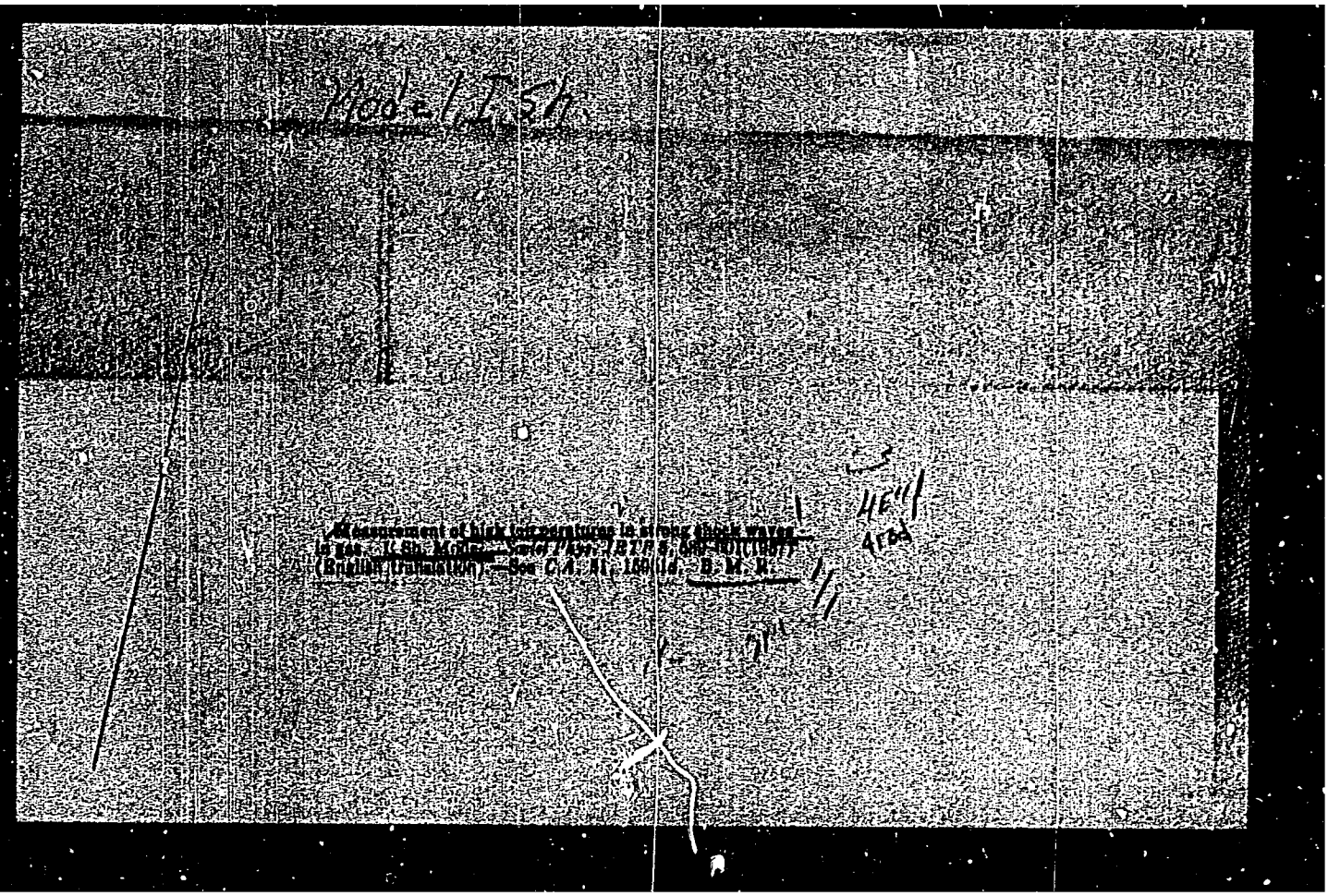
MODEL', David Markovich; BARBEL', I.E., red.

[Brief manual for the medical optician, Kratkii spravoch-
nik meditsinskogo optika. Leningrad, Meditsina, 19[illegible]. 159 p.
(MIRA 18:4)

MODEL', D.M.

Acceleration of the processing of astigmatic lenses. Mash.prom. 14 no.3:45-48 Mr. '60. (MIRA 13:6)

1. Leningradskiy optiko-mekhanicheskiy zavod.
(GLASS, OPTICAL)



AUTHOR MODEL', I.Sh.

TITLE Measuring of High Temperatures in Strong Shock Waves in Gases. (Izmereniye vysokikh temperatur v sil'nykh udarnykh volnakh v gazakh. Russian) 56-4-12/52

PERIODICAL Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 32, Nr 4, pp 714-726 (USSR).

ABSTRACT

The present paper describes a photographic method for the measuring of high temperatures and of the coefficient of the absorption of radiation by gases in a plane shockwave. The individual chapters of the paper deal with the photographic method for the measuring of high temperatures, the employment of the photographic method for the measuring of air temperature in a plane shock wave, measuring of the absorption coefficient and the absorption capacity, as well as the measuring of the temperature of heavy rare gases in strong shock waves.

Some Conclusions: The photographic method discussed here uses the comparison of the density of the photographic image of the front of the shock wave with the density of the

CARD 1/3

56-4-12/52

Measuring of High Temperatures in Strong Shock Waves in Gases.

illustration of the temperature normal in a narrow wave length interval. The author develops a method for the working on the photochronograms for the determination of the coefficient of the absorption of the radiation in the front of the plane shock wave. The temperatures measured in the plane shock wave measured in air amount at velocities V = 6,4; 7,1 and 8,05 km/sec respectively to 7480; 9270, 10900°K. respectively. The accuracy of these temperature measurings amounts to ± 10%. The experimental data obtained agree satisfactorily with the theoretically computed values. The coefficient of absorption of the radiation (λ =0,625 μ) in the front of the plane shock wave in air at T = 7480°K amounted to T = 7480°K to 1,66 cm^{-1} and at T = 10900°K to 3,7 cm^{-1}. The temperatures stated in the front of strong shock waves in heavy rare gases were by several degrees lower than the computed values. The analysis of the possible reasons of this disagreement showed the following: At very high temperatures the heating of the gas located before the front essentially influences measuring results by the radiation of the shock wave. The layer of gas heated by radiation becomes

CARD 2/3

'52

Measuring of High Temperatures in Strong Shock Waves in Gases.

nontransparent and screens the "hotter" front of the shock wave. The temperature of this layer is always lower than the real temperature of the front.
(With 14 Illustrations and 3 Tables.)

ASSOCIATION: Chemical-Physical Institute of the Academy of Science of the U.S.S.R.
PRESENTED BY: -
SUBMITTED: 30.11. 1956.
AVAILABLE: Library of Congress.

CARD 3/3

SOV/56-34-3-10/55

AUTHORS: Samylov, S. V., Tsukerman, V. A., Model', I. Sh.

TITLE: The Glow of Gases Irradiated by Soft X-Rays (Svecheniye gazov pod deystviyem myagkogo rentgenovskogo izlucheniya)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 3, pp. 599 - 608 (USSR)

ABSTRACT: The purpose of this work is a more detailed investigation of the glow of gases and metals under the action of soft X-rays. The authors explained the dependence of the intensity of the glow on the type and on the pressure of the gas and they also obtained some data on the mechanism of the transformation of the X-rays into visible light. First the experimental method is discussed in detail. A diagram illustrates the results of the first measurements and of the intensity of the glow as a function of the air pressure for Be, Cu, Mo, Sn, and Pt. These measurements were made by a photoelectronic multiplier. The absolute yield of light increases with increasing atomic number of the metal. When the pressure is reduced from 760 to 7 to 10 mm Hg

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The Glow of Gases Irradiated by Soft X-Rays

the intensity of the glow increases in most of the metals. A further diminution of the pressure leads to a monotonous decrease of the intensity. At pressures of about 10^{-2}mm mercury column and below the photoelectronic multiplier with the maximum amplification records no noticeable yield of light. These unexpected results showed that the observeable glow is not connected with the fluorescence of the metals under the action of X-rays. It was supposed that the glow of the gas in the chamber is excited by such electrons which are knocked out of the metallic surface and of the atoms of the gas according to the photoeffect by the Roentgen quanta. The added photographs of the glow in the air of the chamber prove this assumption. A further proof for the electronic nature of the excitation of the glow in gas when irradiated by X-rays resulted from photographing the glow of the air in a magnetic field. The arrangement of this experiment is illustrated by a figure. Further diagrams among others illustrate the following: The dependence of the intensity of the glow of air and argon on the pressure in case of absence of a metallic surface in the chamber, the pressure dependence of the intensity of the glow of a mixture of 80 % Ar + 20 % O_2, the results of the microphotometric

The Glow of Gases Irradiated by Soft X-Rays

evaluation of the spectrogram of the glow of argon at atmospheric pressure. The last paragraph gives a detailed discussion of these results. The following can be assumed as proved: In case of energies of the ionizing radiation, by far, surmounting the ionization potential of the gas, the glow occurs as a consequence of electron transfers and it is essentially determined by the atomic and molecular properties of the gas, by its density and its admixtures. Finally the authors draw some practical conclusions from the here described experiments; these conclusions are of interest for working with gas-scintillators. There are 9 figures, 1 table, and 17 references, 5 of which are Soviet.

SUBMITTED: October 10, 1957

Card 3/3

KUZNETSOV, F.O.; LEBEDEV, N.N.; MODEL', I.Sh.; TSUKERMAN, V.A.

Using coaxial photocells for recording high-speed luminous phenomena. Prib.i tekh.eksp. 6 no.5:132-134 S-O '61. (MIRA 14:10)
(Photcelectric measurements)

S/120/62/000/001/042/061
E192/E382

24 680

AUTHORS: Lebedev, N.N. and Model', I.Sh.

TITLE: Electronic photo-recorder

PERIODICAL: Pribory i tekhnika eksperimenta, no. 1, 196-, 169 - 172 .

TEXT: The instrument can be used to investigate various light phenomena (either internally or externally stimulated) at time-base speeds from 10 - 280 km/s. The light from the investigated object is projected by an input objective onto the cathode of an electron-optical converter (EOC) through a slot situated near the external glass wall of the photocathode. The light image is converted into an electronic image by the photocathode. The latter is focused and accelerated by the electrostatic field of an electron lens which is formed by the photocathode and a diaphragm. It is then transmitted to the output fluorescent screen of the converter, where it is converted again into a visible image and can be photographed. During the transfer from the photocathode to the screen, the electron beam

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Electronic photo-recorder

carrying the image passes through the electric fields of a number of deflector plates of the EOC and it can easily be controlled. Control of the exposure time is performed by two pairs of electrodes which form an electronic shutter operated by a shutter-pulse generator. This generator is triggered at the required time instant by the investigated phenomenon by employing one of the standard methods (Ref. 1 - L.V. Al'tshuler, K.K. Krupnikov, B.N. Ledenev, V.I. Zhuchikhin, M.I. Brazhnik - Zh. eksperim. i teor. fiz., 1958, 34, 874). The signal of the converter is shaped into suitable triggering pulses and these actuate the shutter-pulse generator and the time-base. A circuit diagram of the photo-recorder is shown in Fig. 5 (1 - triggering input; 2 - shutter plates of the EOC; 3 - two horizontal plates of the EOC). The electron-optical converter is of the type ПИМ-2М (PIM-2M) with an Sb-Cs photocathode having a sensitivity of 70 μA/lumen (Ref. 13 - M.M. Butslov - Progress of Scientific Photography [Uspekhi nauchn. fotogr.], v.6, 1959, 76). The triggering signal from the investigated effect actuates the shaping circuit which, in turn, actuates the

Electronic photo-recorder

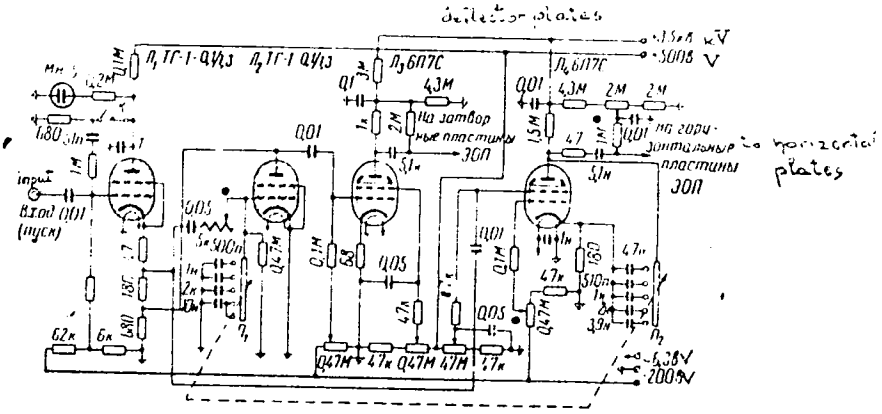
shutter-pulse generator and the time-base. The first tube of the circuit of Fig. 5 is triggered by the first signal from the converter and all the following pulses have no effect on it. After completing the investigation, the tube is extinguished by means of the key K . The positive pulse produced at the cathode of the first tube is applied to the anode and the first grid of the second tube and the grid of the fourth tube. A shutter pulse having an amplitude of +450 V is thus produced at the anode of the second tube. This is amplified by the third tube, whose output is 1.8 kV; this is then applied to the shutter plates of the EOC. Simultaneously with the shutter, the pulse from the cathode of the first tube actuates the fourth tube where a negative pulse having an amplitude of 3.5 kV is obtained at the anode. This is applied to the horizontal deflection plates of the EOC. This time-base generator makes it possible to control the velocity of the electron beam within the range from 10 - 280 km/sec. The instrument is also provided with facilities for shifting the image along the horizontal axis of the converter. This is done by applying a direct voltage to one

Electronic photo-recorder

of the horizontal plates, the magnitude of this voltage being adjusted by the 2 M potentiometer (see Fig. 5). The authors express their gratitude to V.A. Vanchurin for help in the work and in writing this paper. There are 7 figures.

SUBMITTED: May 18, 1961

Fig. 5:



Card 4/4

L 9878-63 EPR/EPA(b)/EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2--AFFTC/ASD/ESD-3/AFWL/SSD--Ps-4/Pd-4/Pz-4/Pab-4--AT/WW

ACCESSION NR: AP3003084 S/0056/63/044/006/1760/1764

AUTHOR: Voytenko, A. Ye.; Model', I. Sh. 82 81

TITLE: Generation of strong shock waves by electric discharges in gaps

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1760-1764

TOPIC TAGS: shock waves, electric gap discharges, moving plasma

ABSTRACT: Shock waves in a narrow gap located between two parallel nonconductive plates were investigated in order to study the expansion rate of spark channels. The experiments were made with current-rise rates of up to 2 x 10 sup 11 amp/sec. A 14.4-microfarad, 10-kv bank of capacitors was used to generate shock waves in hydrogen, helium, argon, and air at a pressure of 1 atm and gap dimensions of 2--10 mm. It was found that 1) the observed velocity of motion of border glow is the front velocity of the shock waves; 2) the velocities of broadening of a spark channel are determined mainly by current densities of discharge cross sections in accordance with I/S = constant for a discharge current increasing linearly, and I/S = 1/t for a cylindrical broadening at a constant velocity (where I is the current in amperes, S is the discharge cross section in cm sup 2, and t is the time in seconds); 3) the velocity of channel broadening depends only slightly on

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L 9878-63
ACCESSION NR: AP3003094

time and plasma conductivity; and 4) temperatures and pressures in a spark channel can be determined by evaluating the front velocities of the shock waves. Spark discharges with high magnitudes of dI/dt can be utilized for the generation and investigation of strong shock waves in gases. A shock-wave speed of 28 km/sec was measured in hydrogen. Orig. art. has: 6 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 14Dec62 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 009 OTHER: 000

Card 2/2

L 41082-66 EWT(d)/EWT(l)/EWP(m)/EWT(m)/EWP(t)/ETI IJP(c) JD/WW

ACC NR: AP6027950 SOURCE CODE: UR/0020/66/169/003/0547/0549

AUTHOR: Voytenko, A. Ye.; Model', I. Sh.; Samodelov, I. S.

ORG: none

TITLE: Brightness temperature of shock waves in xenon and air

SOURCE: AN SSSR. Doklady, v. 169, no. 3, 1966, 547-549

TOPIC TAGS: shock wave, brightness temperature, SHOCK WAVE VELOCITY, XENON, AIR

ABSTRACT: Experiments were made to determine the dependence of the brightness temperature of a shock wave on its velocity. The shock wave was generated in a specially designed assembly by an explosive charge. The charge ruptured an aluminum diaphragm and discharged into a hemispherical vessel which was closed by another diaphragm connecting it with a cylindrical tube; the hemispherical vessel was filled with hydrogen, which, after rupture of the diaphragm, generated a shock wave in the cylindrical tube filled with xenon or air. The maximum shock velocities in xenon and air were 37 and 43 km/sec, respectively. The brightness temperature in xenon had a maximum of 50,000K at a shock velocity of 18 km/sec; with a further increase in velocity, it decreased to 23,000K. A maximum brightness temperature of 73,000K was recorded in air at a shock velocity of 43 km/sec. Orig. art. has: 4 figures. [PV]

SUB CODE: 20/ SUBM DATE: 22Sep65/ ORIG REF: 011/ ATD PRESS: 5055

UDC: 534.222.2:535.2

Card 1/1 11b

MODEL', Kh. M., Cand of Bio Sci --(diss) "Phenology of the Malaria Mosquito Anopheles Maculipannis Meig in Belorussian SSR," Minsk, 1959, 15 pp (Belorussian State University im V. I. Lenin) (KL, 8-60, 1.5)

SAVITSKIY, B.P.; MODEL, Kh.M.; MISHAYEVA, N.P.

Bloodsucking mosquitoes (Diptera, Culicidae) of the White Russian S.S.R. Ent. oboz. 41 no.2:350-354 '62. (MIRA 15:11)

1. Institut mikrobiologii, epidemiologii i gigiyeny, Minsk.
(White Russia--Mosquitoes)

L 08711-67 EWT(1) JK
ACC NR: AP6034116 (A,N) SOURCE CODE: UR/0358/66/035/005/0607/0609

AUTHOR: Model', Kh. M.; Mishayeva, N. P.

ORG: Belorussian Scientific Research Institute of Epidemiology and Microbiology, Minsk (Belorusskiy nauchno-issledovatel'skiy institut epidemiologii i mikrobiologii)

TITLE: Studies of the fauna and ecology of bloodsucking mosquitoes in the Gomel' oblast of the Byelorussian SSR

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 5, 1966, 607-609

TOPIC TAGS: animal disease, disease vector, mosquito, ~~population study~~, BIOLOGIC ECOLOGY

ABSTRACT: Twenty species of mosquitoes were identified in the Svetlogorsk rayon, including 18 bloodsucking species (subfamily *Culicinae*) belonging to the genera *Anopheles*, *Aedes*, *Culex*, and *Theobaldia*, and two non-bloodsucking species (subfamily *Chaoborinae*) belonging to the genera *Chaoborus* and *Mochlonyx*. The most numerous and widespread species of bloodsucking mosquitoes were *Aedes communis*, *Aedes excrucians*, *Aedes punctor*, and *Aedes maculatus*. The chief breeding places for Aedes mosquitoes were forest and meadow bogs, sinkholes, trenches,

UDC: 576.895.771.01+576.895.771.095.1](476.2)

Card 1/2

L 08711-67
ACC NR: AP6034116

and ditches. The seasonal population of Aedes mosquitoes (late April to early September) varied depending on the biotope. The average number of mosquitoes collected in 10 minutes was highest in areas of nettle and Spiraea (meadowsweet, etc.) growths. Orig. art. has: 1 figure. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 03Jul64/ ORIG REF: 002

Card 2/2 net

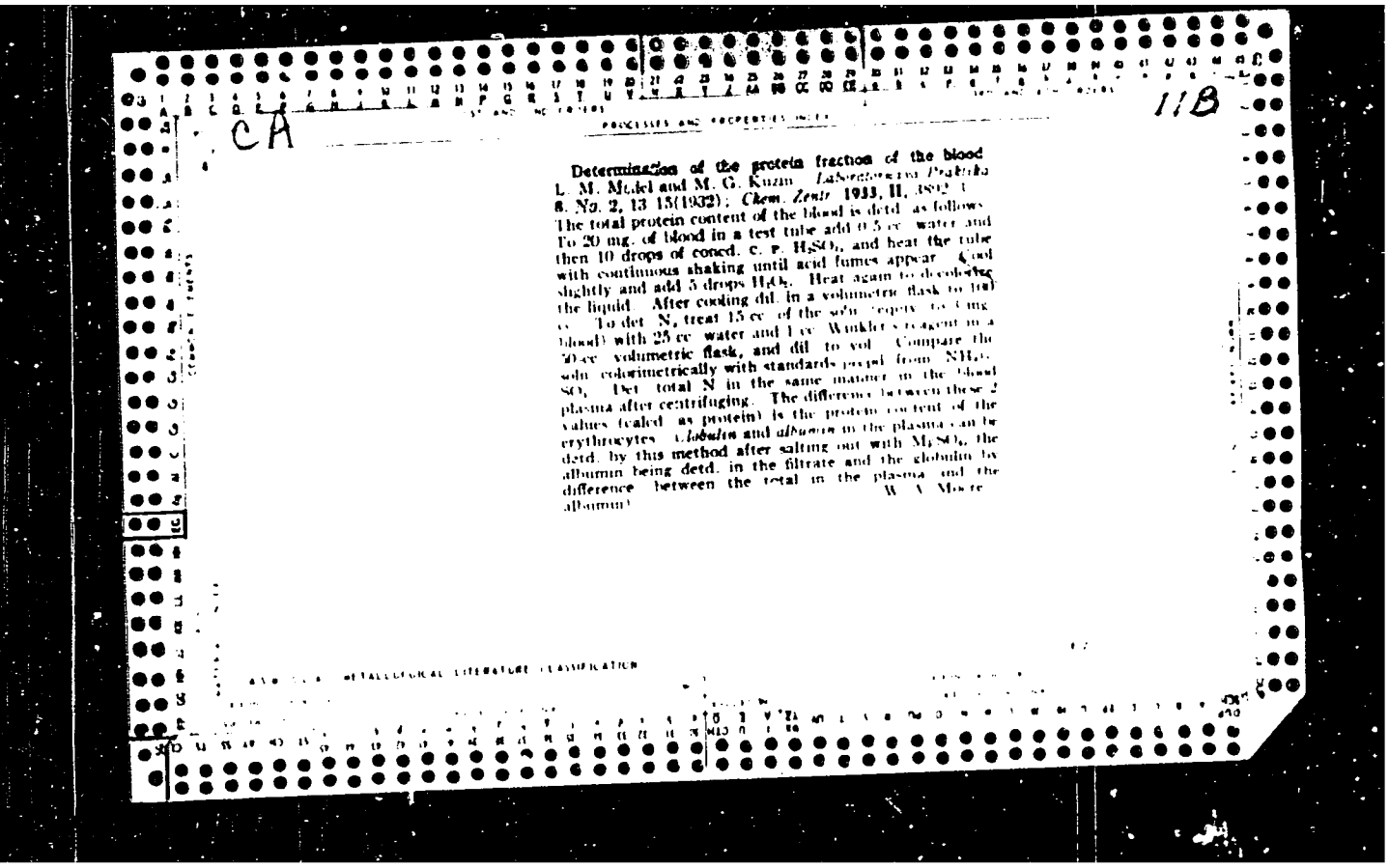
MODEL', L. M.

Tuberculin[illegible]

[illegible]

MODE[illegible], L. M.

Biochemistry and immunochemistry [illegible]
[illegible], 19[illegible]. [illegible]

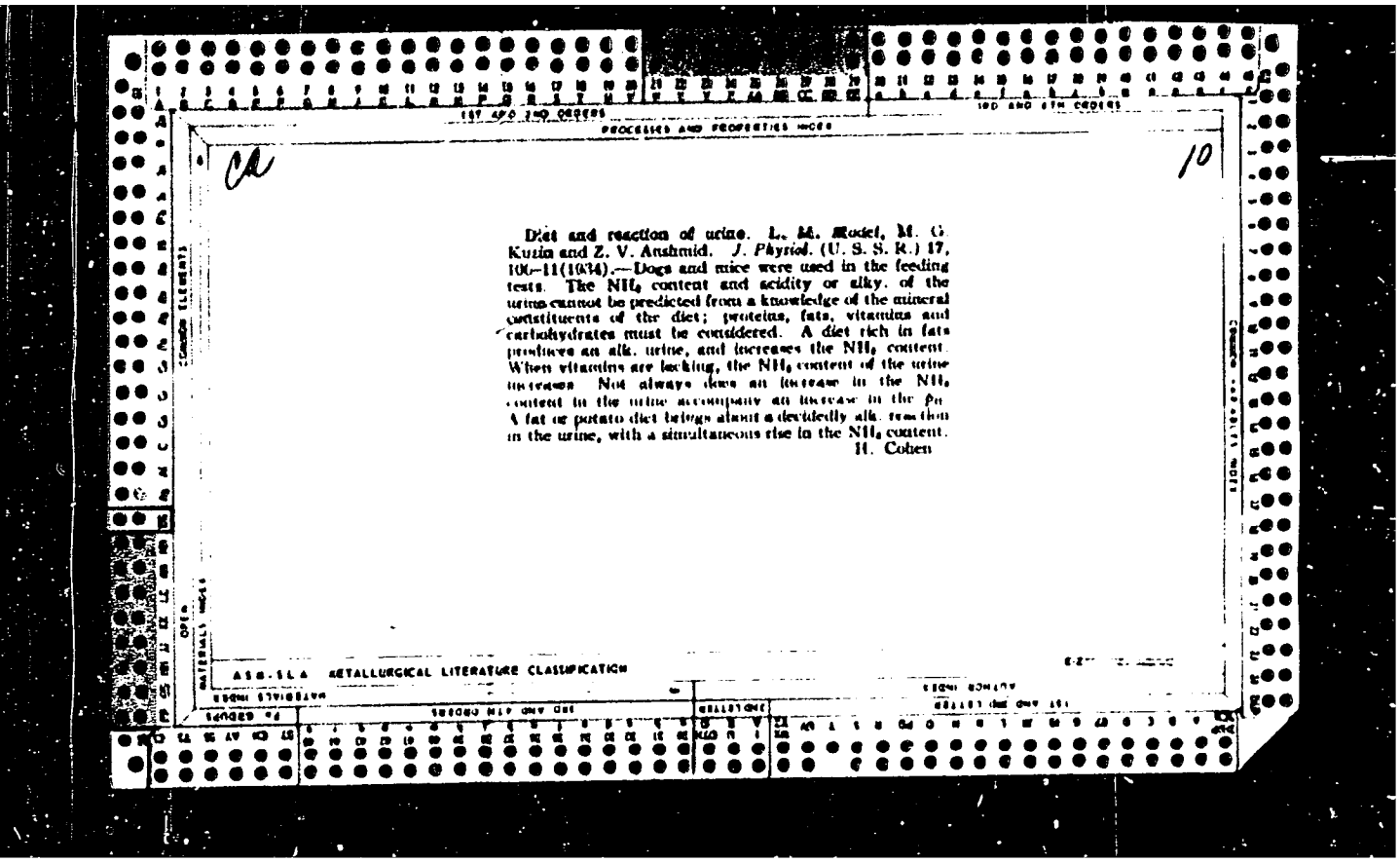


CA

11B

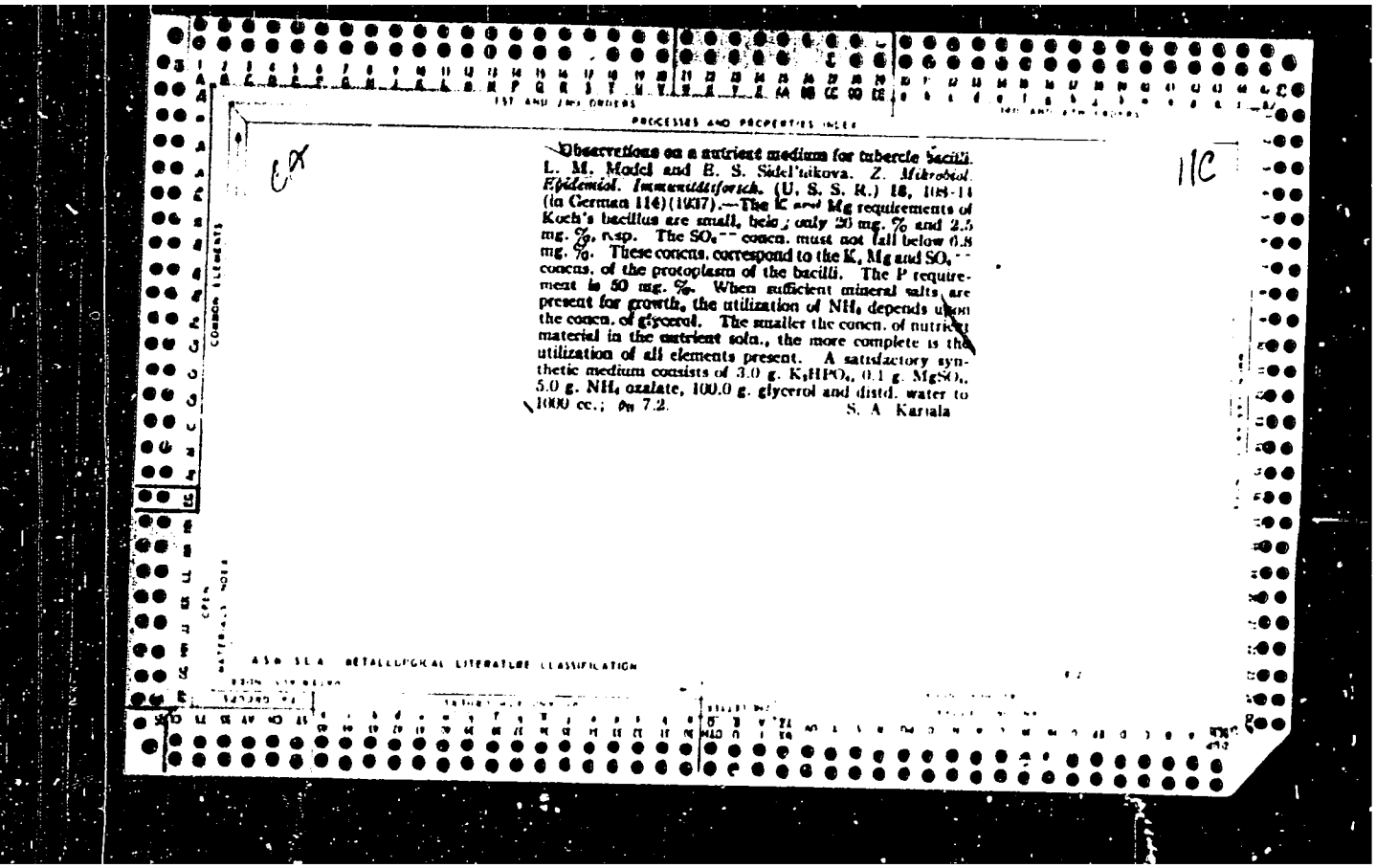
Determination of the protein fraction of the blood. L. M. Model and M. G. Kuzin. *Laboratornoe Delo* 8, No. 2, 13-15(1932); *Chem. Zentr.* 1933, II, 1807. The total protein content of the blood is detd. as follows: To 20 mg. of blood in a test tube add 0.5 cc. water and then 10 drops of concd. c. p. H_2SO_4, and heat the tube with continuous shaking until acid fumes appear. Cool slightly and add 5 drops H_2O_2. Heat again to decolorize the liquid. After cooling dil. in a volumetric flask to 100 cc. To det. N, treat 15 cc. of the soln. (equiv. to 3 mg. blood) with 25 cc. water and 1 cc. Winkler's reagent in a 50-cc. volumetric flask, and dil. to vol. Compare the soln. colorimetrically with standards prepd. from NH_4-SO_4. Det. total N in the same manner in the blood plasma after centrifuging. The difference between these 2 values (calcd. as protein) is the protein content of the erythrocytes. *Globulin* and *albumin* in the plasma can be detd. by this method after salting out with $MgSO_4$, the albumin being detd. in the filtrate and the globulin by difference between the total in the plasma and the albumin. W. A. Mosher

METALLURGICAL LITERATURE CLASSIFICATION



Diet and reaction of urine. L. M. Model, M. G. Kuzin and Z. V. Anshmid. *J. Physiol.* (U. S. S. R.) 17, 106–11(1934).—Dogs and mice were used in the feeding tests. The NH_3 content and acidity or alky. of the urine cannot be predicted from a knowledge of the mineral constituents of the diet; proteins, fats, vitamins and carbohydrates must be considered. A diet rich in fats produces an alk. urine, and increases the NH_3 content. When vitamins are lacking, the NH_3 content of the urine increases. Not always does an increase in the NH_3 content in the urine accompany an increase in the p_H. A fat or potato diet brings about a decidedly alk. reaction in the urine, with a simultaneous rise in the NH_3 content.

H. Cohen



Observations on a nutrient medium for tubercle bacilli. L. M. Model and B. S. Sidel'nikova. *Z. Mikrobiol. Epidemiol. Immunnobiologiech.* (U. S. S. R.) 18, 108-14 (in German 114) (1937).—The K and Mg requirements of Koch's bacillus are small, being only 20 mg. % and 2.5 mg. %, resp. The SO_4^{--} concn. must not fall below 0.8 mg. %. These concns. correspond to the K, Mg and SO_4^{--} concns. of the protoplasm of the bacilli. The P requirement is 50 mg. %. When sufficient mineral salts are present for growth, the utilization of NH_3 depends upon the concn. of glycerol. The smaller the concn. of nutrient material in the nutrient soln., the more complete is the utilization of all elements present. A satisfactory synthetic medium consists of 3.0 g. K_2HPO_4, 0.1 g. $MgSO_4$, 5.0 g. NH_4 oxalate, 100.0 g. glycerol and distd. water to 1000 cc.; p_H 7.2.

S. A. Kariala

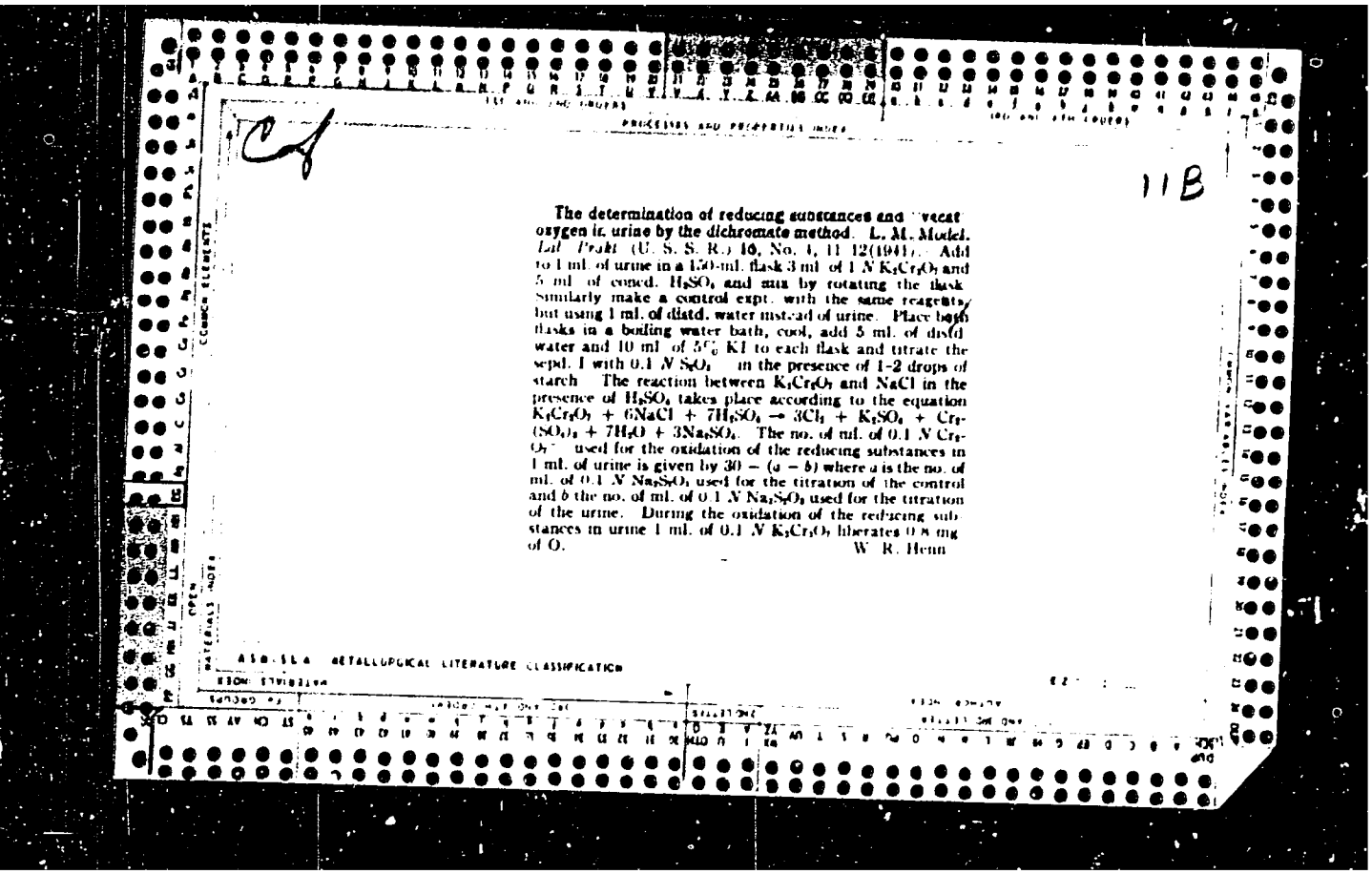
11-B

CA

PROCESSES AND PROPERTIES INDEX

A standard container for the determination of lactic acid. **L. M. Model.** *Lab. Prakt.* (U. S. S. R.) **13**, No. 4, 18(1938); *Chem. Zentr.* **1938, II**, 2313.—The use of a standard vessel for the detn. of lactic acid in the blood with the colorimeter of Autenrieth-Königsberger facilitates the work considerably, since then only 1 soln. is prepd. for the comparison. It contains [illegible] and 0.5 cc. 0.1% $K_2Cr_2O_7$ in 12 cc. water. W. A. M.

METALLURGICAL LITERATURE CLASSIFICATION



11B

The determination of reducing substances and "vecat" oxygen in urine by the dichromate method. L. M. Model. *Lab. Delo* (U. S. S. R.) **10**, No. 4, 11-12(1941).—Add to 1 ml. of urine in a 150-ml. flask 3 ml. of 1 *N* $K_2Cr_2O_7$ and 5 ml. of concd. H_2SO_4 and mix by rotating the flask. Similarly make a control expt. with the same reagents but using 1 ml. of distd. water instead of urine. Place both flasks in a boiling water bath, cool, add 5 ml. of distd. water and 10 ml. of 5% KI to each flask and titrate the sepd. I with 0.1 *N* $Na_2S_2O_3$ in the presence of 1-2 drops of starch. The reaction between $K_2Cr_2O_7$ and NaCl in the presence of H_2SO_4 takes place according to the equation $K_2Cr_2O_7 + 6NaCl + 7H_2SO_4 \rightarrow 3Cl_2 + K_2SO_4 + Cr_2(SO_4)_3 + 7H_2O + 3Na_2SO_4$. The no. of ml. of 0.1 *N* $Cr_2O_7^{--}$ used for the oxidation of the reducing substances in 1 ml. of urine is given by $30 - (a - b)$ where *a* is the no. of ml. of 0.1 *N* $Na_2S_2O_3$ used for the titration of the control and *b* the no. of ml. of 0.1 *N* $Na_2S_2O_3$ used for the titration of the urine. During the oxidation of the reducing substances in urine 1 ml. of 0.1 *N* $K_2Cr_2O_7$ liberates 0.8 mg. of O.

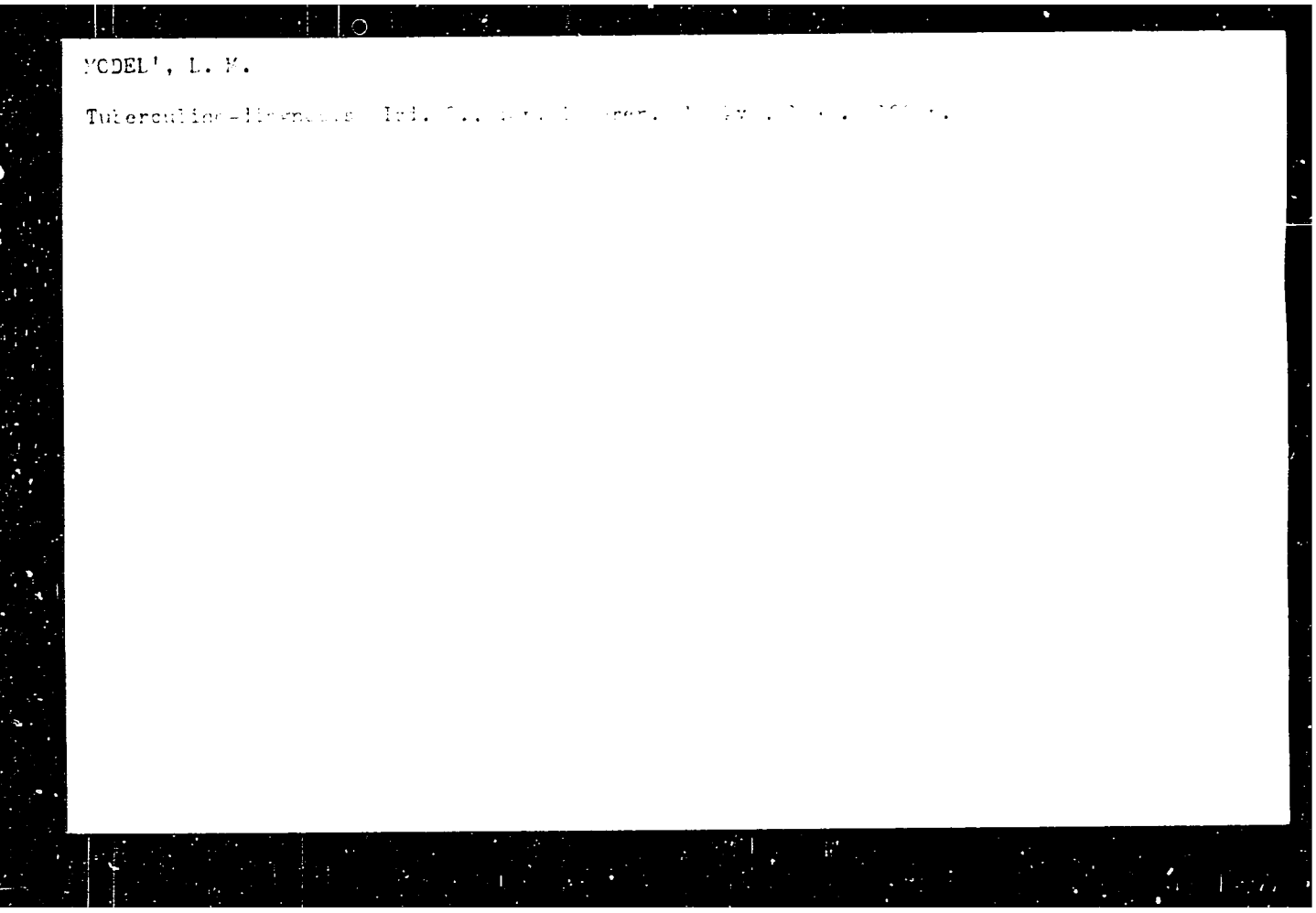
W. R. Henn

MODEL', L. M.

Exptl. Microbiology Lab., Uzbek, Inst. for Sci. Research on Tuberculosis, (-1944-).

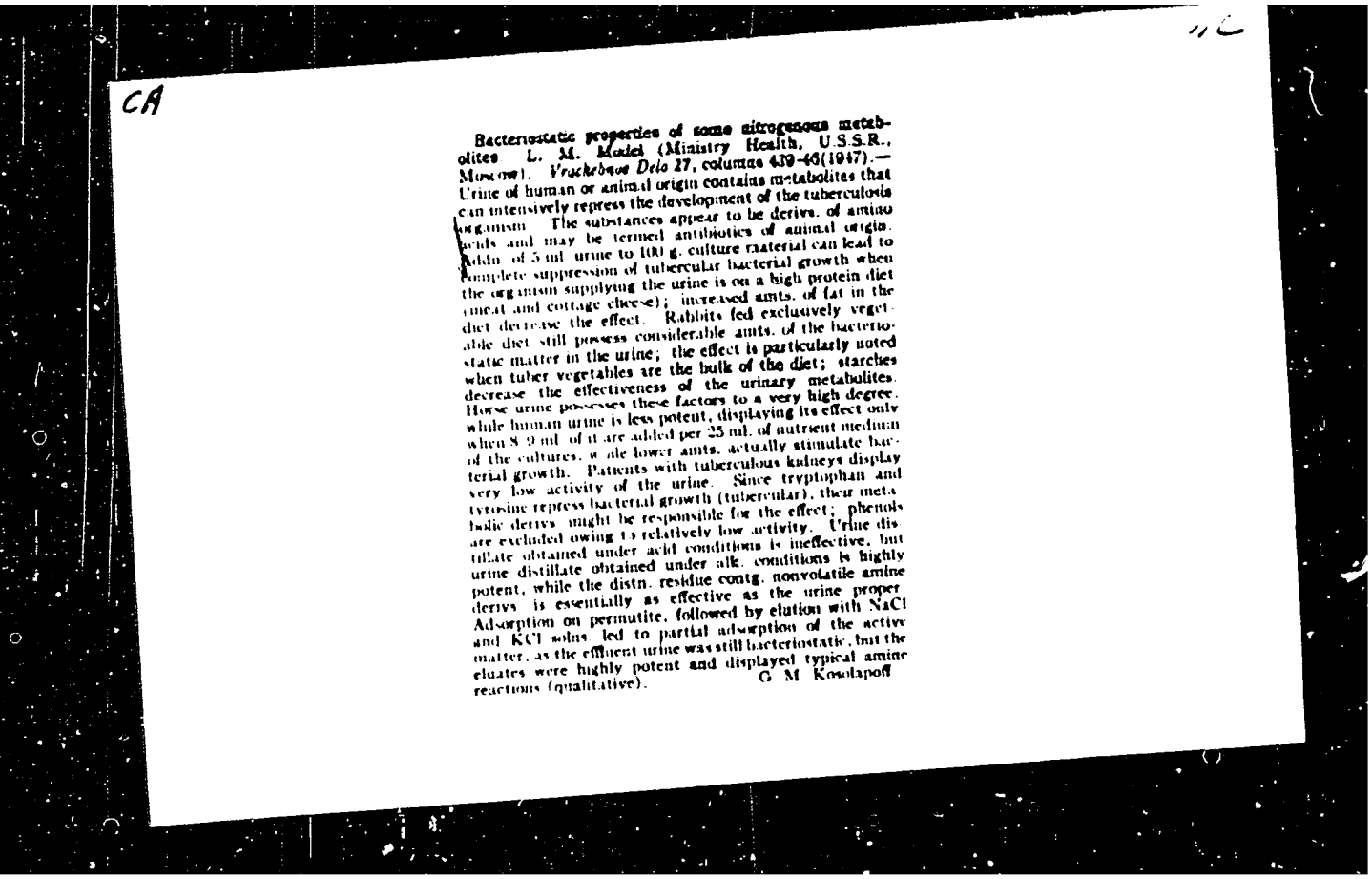
"Experiment in the Preparation of the Tuberculine on Synthetic Medium,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 10-11, 1944.



YODEL', L. M.

Tuberculin-liv[illegible]



CA

Bacteriostatic properties of some nitrogenous metabolites L. M. Madel (Ministry Health, U.S.S.R., Moscow). *Vrachebnoe Delo* 27, columns 439-46(1947).—Urine of human or animal origin contains metabolites that can intensively repress the development of the tuberculosis organism. The substances appear to be derivs. of amino acids and may be termed antibiotics of animal origin. Addn. of 5 ml. urine to 100 g. culture material can lead to complete suppression of tubercular bacterial growth when the organism supplying the urine is on a high protein diet (meat and cottage cheese); increased amts. of fat in the diet decrease the effect. Rabbits fed exclusively vegetable diet still possess considerable amts. of the bacteriostatic matter in the urine; the effect is particularly noted when tuber vegetables are the bulk of the diet; starches decrease the effectiveness of the urinary metabolites. Horse urine possesses these factors to a very high degree, while human urine is less potent, displaying its effect only when 8-9 ml. of it are added per 25 ml. of nutrient medium of the cultures, while lower amts. actually stimulate bacterial growth. Patients with tuberculous kidneys display very low activity of the urine. Since tryptophan and tyrosine repress bacterial growth (tubercular), their metabolic derivs. might be responsible for the effect; phenols are excluded owing to relatively low activity. Urine distillate obtained under acid conditions is ineffective, but urine distillate obtained under alk. conditions is highly potent, while the distn. residue contg. nonvolatile amine derivs. is essentially as effective as the urine proper. Adsorption on permutite, followed by elution with NaCl and KCl solns. led to partial adsorption of the active matter, as the effluent urine was still bacteriostatic, but the eluates were highly potent and displayed typical amine reactions (qualitative). G. M. Kosolapoff

MODEL' , L. M.

25899 Model', L. M. O Razmnozhenii Tuberkuleznykh Batsill Voligo-aerobnykh Usloviyakh. Byulleten' In-ta Tuberkuleza Akad. Med. Nauk SSSR, 1948, No. 1, S 21-24

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

MODEL'S L. M.

For Professor L. M. Model's [illegible] Jubilee [Phthisiatrist, 60th birthday], [illegible]
In-ta tuberkuleza Akad. med. nauk SSSR, 1948, No. 4, p. 3-6, with [illegible]

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

MODEL' L. M.

Model' L. M. "The problems of tuberculosis in the light of Michurinist biology," Byulleten' In-ta tuberkulesa Akad. med. nauk SSSR, 1949, No. 1, p. 7-12.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949).

MODEL', L. M.

Model', L. M. and Gol'dfand, R. A. and Ioffe, R. A. - "Changes in the chemical composition of the spinal fluid of tuberculosis meningitis patients undergoing streptomycin treatment", Trudy Akad. med. nauk SSSR, Vol. II, 1949, p. 133-42.

SO: U-4329, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 21, 1949).

MODEL', L. M.

33469. Nauchnyy Podvig I. P. Pavlova. Problemy Tuberkuleza, 1949, No. 5, c. 14-17.

SO. Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

MODEL', L. M.

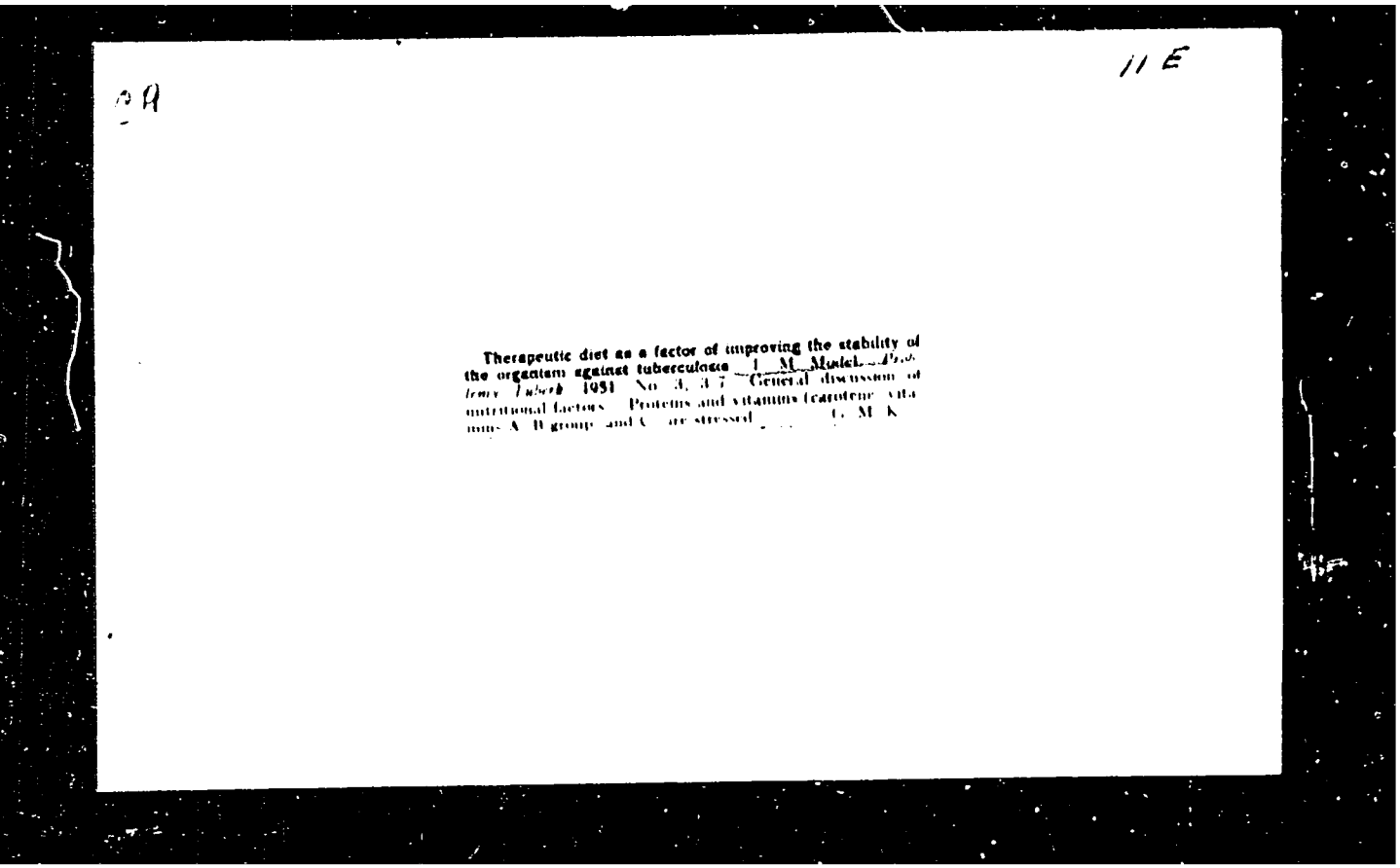
25248 . MODEL', L. M. O Patofiziologicheskom Znachenii Povyshennoy Chvstvitel'nosti K Tuberkulinu Tuberkuleze. Sov. Meditsina. 1949, No. 8. S. 7-8.

SO: Letopis' No. 33, 1949

MODEL', L. M.

Contemporary problems of immunobiology of tuberculosis.
Probl. tuberk., Moskva no.4:16-21 July-Aug. 1950. (CIML 20:1)

1. Of the Institute of Tuberculosis of the Academy of Medical Sciences USSR (Director -- Z. A. Lebedeva).



11 E

Therapeutic diet as a factor of improving the stability of the organism against tuberculosis. I. M. Minkh. *Problems Tuberc.* 1951 No. 3, 3-7. General discussion of nutritional factors. Proteins and vitamins (carotene, vitamins A, B group, and C) are stressed. [illegible] I. M. K.

CA

11 H

Products of transformation of *p*-aminosalicylic acid (PAS) in the urine L. M. Model. *Problemy Tuberk* 1951, No. 5, 71.—A brief statement concerning the elimination of new substances in the urine after PAS treatments. It is suggested that these substances are glucuronic derivs. of PAS produced probably by the liver detoxication route. This would explain the appearance of sugar in the urine of such patients. The naphthoresorcinol test for glucuronic acid can be used for detection of such substances in the urine.
G. M. Kosolapoff

Model', L.M.

Science

Biology and biochemistry of tubercle bacilli, Moskva, Izd-vo Akademii med. nauk SSSR, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952,

Model', L. M.

USSR/Medicine - Infectious Diseases Jan/Mar 53

"L. M. Model's 'Biology and Biochemistry of Tuberculosis Mycobacteria,' " (Pro A. I. Togunova, reviewer)

Vest Akad Med Nauk SSSR, No 1, pp 49-52

States that acc Model's book (Biologiya i biokhimiya tuberkuleznykh mikobakteriy), fatty acids do not suppress tuberculosis bacilli, which easily oxidize them. Says that acc results of Model's expts, auxins suppress the growth of tuberculosis bacilli in vitro. Mentions that Model's book discusses thiosemicarbazones (e.g., praacetaminobenzaldehyde thiosemicarbazone and the USSR drug, tubin, synthesized by I. Kh. Fel'dman), which are effective drugs for the therapy of tuberculosis, and says that tubin is particularly effective, because paraaminobenzoic acid does not exert an antagonistic effect on it. Refers to Model's monograph as a valuable contribution to the knowledge of the biochemistry and physiology of tuberculosis bacilli and of other acid-resistany mycobacteria. Book published Moscow, 1952, by Acad Med Sci USSR; contains 249 pp.

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